



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/917,704	07/31/2001	Kaare Tais Christensen	1076.40413X00	9898

20457 7590 07/03/2002

ANTONELLI TERRY STOUT AND KRAUS  
SUITE 1800  
1300 NORTH SEVENTEENTH STREET  
ARLINGTON, VA 22209

EXAMINER

NGUYEN, LINH V

ART UNIT PAPER NUMBER

2819

DATE MAILED: 07/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/917,704

Applicant(s)

CHRISTENSEN, KAARE TAIS

Examiner

Linh V. Nguyen

Art Unit

2819

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☒ Claim(s) 2 - 9, 11 - 14, 16, and 20 - 21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_ 6) ☐ Other: \_\_\_\_

## DETAILED ACTION

### *Claim Objections*

1. Claims 2 – 9, 11 – 14, 16, and 20 - 21 objected to because of the following informalities:
  - “A” beginning of each claim needs to replace with --The--.
  - Claim 6 line 23 “the step” needs to replace --a step--.
  - Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 5, 6, 7, 8, 10, 11, 15, 16, 17, 18, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Cranford, Jr. et al. U.S. patent No. 5,731,737.

Regarding to claims 1, 2, 5, 6, 7, and 8, Fig. 2 Cranford disclose a method and apparatus for a tuning filter (200), the filter being associated with a center frequency (201 and Col.2 lines 9 – 18), comprising the steps of configuring the filter as an oscillator (Col. 4 lines 52 – 67)); tuning the oscillator to a desired frequency (216); and reconfiguring the oscillator to operate as the filter with the desired frequency as the center frequency (Col. 5 lines 1 – 22) wherein:

- step of configuring the filter as an oscillator comprises compensating for losses in the filter (Col. 1 lines 25 – 41).

- step of tuning the oscillator comprises providing a tuning signal ( $MV_Q$ ,  $MV_{Freq}$ ), and further comprising a step of recording the tuning signal by storing the signal in a register (210) which causes the oscillator to operate at the desired frequency (Col.7 lines 8 – 16).

Art Unit: 2819

4. Regarding to claims 10, 11, 15, 16, 17, 18, and 19, Cranford Jr, et al. as applied to claims 1, 2, 5, 6, 7, and 8 above disclose every aspect of applicant's claimed invention.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3, 4 and 9, 12, 13, 14, 20, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cranford, Jr. et al., and further in view of Kobayashi U.S. patent No. 5,550,520.
7. Regarding to claims 3, 4 and 9, Cranford, Jr. et al. as applied to claim 1 above disclose every aspect of applicant's claim invention, although Cranford does not explicitly disclose wherein the tuning filter of his comprises a bandpass filter or a notch filter, and a tank circuit as claimed of present invention, but Cranford Jr, et al. (Col. 3 lines 1 – 10) teach or suggest there maybe many other circuit or component configure and the like with his actual implementation being circuit specific, and that depending on technology, type of circuit, type of tuneable elements. Therefore it would be obvious to one having ordinary skill in the art at the time the invention was made from the teaching of Cranford Jr. et al. to apply specific component or specific circuit to Cranford Jr. et al. 's device to obtain specific design choice.

Further more, Fig. 3 Kobayashi disclose a tuneable bandpass filter by oscillation includes a tank circuit and the step of oscillation is tuning resonant frequency, and a varactor for tuning the oscillator (Fig. 1, 2)

Art Unit: 2819

Cranford, Jr et al. and Kobayasi are analogous, because they are from similar problem solving of tuneable filter, therefore it would be obvious to one having ordinary skill in the art at the time the invention was made to apply bandpass filter of Kobayasi to the bassband filter of Cranford Jr, et al. for the purpose obtain specific design choice teaches by Cranford Jr. Et al. as discussed above, and compensate for restive losses teaches by Kobayasi (Col. 1 lines 61 – 65)

8. Regarding to claims 12, 13, 14, 20, and 21, Cranford Jr. Et al. modified by Kobayasi as applied to claims 3, 4 and 9 above disclose every aspect of applicant's claimed invention.

### ***Contact Information***

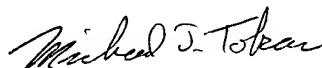
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linh Van Nguyen whose telephone number is (703) 305-1934. The examiner can normally be reached from 8:30 – 5:00 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Michael Tokar can be reached at (703) 305-3493. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

LVN

June 28, 2002



**Michael Tokar**  
Supervisory Patent Examiner  
Technology Center 2800